ZTE MF608

Wireless Access Terminal
User Manual

WELCOME

Thank you for choosing the ZTE MF608 Wireless Access Terminal (modem). Please read this manual carefully to ensure your modem is always working in its best condition.

The pictures, symbols and contents in this manual are just for your reference and might not be completely identical with your modem.

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Glossary

- AC: Alternating Current
- APN: Access Point Name
- BATT: Rechargeable battery
- CID: Caller Identification
- DC: Direct Current
- DNS: Domain Name System (or Service or Server)
- EDGE: Enhanced Data GSM Evolution
- Ethernet: A frame-based computer networking technology for local area networks (LANs).
- GSM: Global System for Mobile Communications
- GPRS: General Packet Radio Service
- HSDPA: High Speed Downlink Packet Access
- IP: Internet Protocol
- LAN: Local Area Network
- LED: Light Emitting Diode
- MHz: Megahertz.
- PDP: Packet Data Protocol
- RSSI: Radio Signal Strength Indicator
- SIM: Subscriber Identification Module
- WCDMA: Wideband CDMA (Code-Division Multiple Access).

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1 General Information

1.1 Best Practice

- Please use the modem far away from TV sets, radio and other electronic equipment so as to avoid electromagnetic interference.
- The modem is not water-resistant, so do not use it in places where there is high humidity.
- Please use original accessories or accessories that are authorized by ZTE. Using any unauthorized accessories may affect your modem's performance, damage your modem or even cause danger to your body and violate related national telecom regulations about modems.
- Do not attempt to dismantle the modem by yourself. Non-expert handling of the device may cause damage.
- Do not disassemble or modify the rechargeable battery.
- Do not allow the modem, rechargeable battery or accessories to come into contact with liquids or moisture at any time. Do not immerse in any liquid.
- Do not put any object on the modem to avoid over-heating.
- Do not expose your modem to direct sunlight or store it in hot areas. High temperatures can shorten the life span of

electronic devices.

- Please do not touch the antenna with your hands while making a call or browsing the Internet. Covering the antenna may affect the call quality, may cause the handset to operate at higher power level than needed, and may shorten the talk time and standby time.
- Do not allow children to play with the modem, charger or rechargeable battery.
- It is highly recommended to charge the rechargeable battery before initial use. The rechargeable battery might have been discharged during storage and delivery.
- Please switch off the modem if you are not using it. Please remove the rechargeable battery from the modem if you will not be using the modem for long periods of time (ex. 10 days or more).
- Keep the length of the cable between the modem and phone less than 10 meters apart.

1.2 Cleaning and Maintaining the Modem

- Use an anti-static cloth to clean the modem. Do not use chemical or abrasive cleaners as these could damage the plastic case. Turn off your modem before you clean it.
- Use the modem within the temperature range of -10°C~55°C and the humidity range of 25%~85%.
- Do not use your modem during a thunderstorm.

- Do not take out your SIM card if there is no necessity. The damaged SIM card may cause problems in maintaining the modem.

1.3 Limited Warranty

- This warranty does not apply to defects or errors in the Product caused by:
- (a) Reasonable Modem Appearance Disfiguration;
- (b) End User's failure to follow ZTE's installation, operation or maintenance instructions or procedures;
- (c) End User's mishandling, misuse, negligence, or improper installation, disassemble, storage, servicing or operation of the Product;
- (d) Modifications or repairs not made by ZTE or a ZTE-certified individual;
- (e) Power failures, surges, fire, flood, accident, actions of third parties or other events outside ZTE's reasonable control.
- (f) Usage of products of third Parties, or usage in conjunction with third party products provided that such defects is due to the combined usage;
- (g) Any other cause beyond the range of normal usage for Products. End User shall have no right to reject, return, or receive a refund for any Product from ZTE under the above-mentioned situations.

- This warranty is end user's sole remedy and ZTE's sole liability for defective or nonconforming items, and is in lieu of all other warranties, expressed, implied or statutory, including but not limited to the implied warranties of merchantability and fitness for a particular purpose, unless otherwise required under the mandatory provisions of the law.

1.4 Limitation of Liability

ZTE shall not be liable for any loss of profits or indirect, special, incidental or consequential damages resulting from or arising out of or in connection with using of this product, whether or not ZTE had been advised, knew or should have known of the possibility of such damages, including, but not limited to lost profits, interruption of business, cost of capital, cost of substitute facilities or product, or any downtime costs.

2 Getting started

The modem can work under WCDMA/HSDPA network and GSM/GPRS/EDGE network, and supports both voice and data service.

2.1 Parts Supplied

Modem （1）

External power adapter (1)

Antenna (1)

* Ethernet cable (Cross- RJ45) (1)

Phone cable (RJ11) (1)

Rechargeable battery (Ni-MH) (1)

User manual (1)

Certificate of quality (1)

Parts	Quantity
Modem	1
Rechargeable battery (Ni-MH)	1
External power adapter	1
Antenna	1
User manual	1
Certificate of quality	1
Phone cable (RJ11)	1
*Ethernet cable(Cross - RJ45)	1

* Please note that this is a Cross Ethernet Cable unlike your normal Ethernet cable that you might have.

2.2 Modem Appearance

Top View Left-view

Chart 2-1 Modem appearance

2.2.1 LED indicator

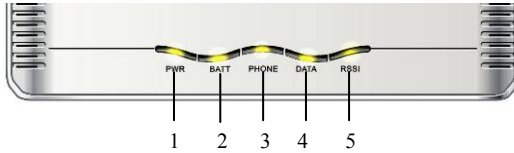

Chart 2-2 LED indicator

Indicator	State	Description
1. PWR (power indicator)	light on	External power supply is connected.
	light off	External power supplied is disconnected.

2. BATT (Rechargeable battery indicator)	light on	Modem switch is on, and power is supplied by rechargeable battery only.
	blinking	Low voltage alert.
	light off	Power is not being supplied by rechargeable battery but by external power supply.
3. PHONE (Phone indicator)	light on	The phone is off hook.
	light off	The phone is on hook.
4. DATA (Data indicator)	blinking	The modem is connected to the computer with the cross Ethernet cable.
	light off	DATA interface is not being used.
5. RSSI（Radio Signal strength indicator）	light on	RF signal is normal.
	blinking	RF signal is poor.
	light off	RF signal is not available.

2.2.2 Switch

The modem may be turned “On” or “Off” by using the power switch ⏻ which is located at modems rear side.

To power on, turn it to “ | ”;

To power off, turn it to “ O ”.

The power switch is set to “ O ” when leaving the factory.

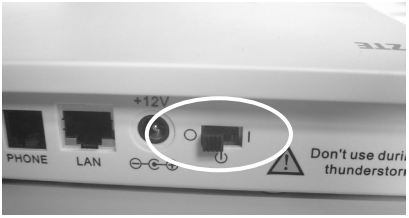

Chart 2-3 Power switch

2.3 Interface and installation

2.3.1 Interface description

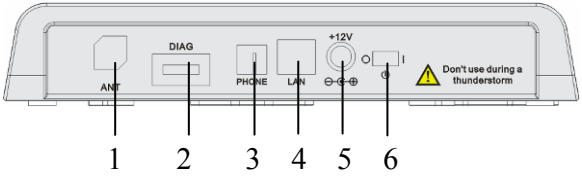

Chart 2-4 Rear View of the modem

(1) **ANT**: Antenna connector (TNC Female on Modem);

(2) **DIAG**: Test and diagnostic interface;

(3) **PHONE**: For connection to a telephone set via the telephone cable (RJ11);

(4) **LAN**: For connection to a computer via the Ethernet cable provided (Cross- RJ45);

(5) **Power Socket**: For connection to the external power supply;

(6)⏻: Power switch to turn the modem "On" or "Off".

2.3.2 Installation

1. Step 1: Install the antenna provided, to the antenna connector.

Hold the antenna and rotate the screw cap in clockwise direction. **Do not rotate the antenna directly.**

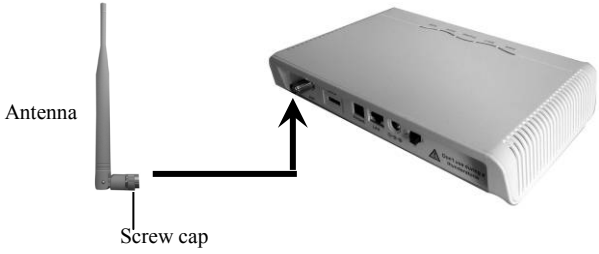

Chart 2-5 Antenna installation

Note: Please make sure you DO NOT put anything on top of the modem or antenna.

2. Step 2: Install the SIM card to the bottom of the modem.

(a) Lift the cover up to and remove it.

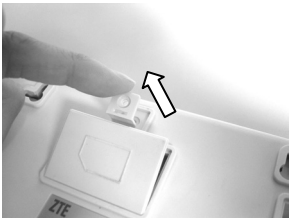

Chart 2-6 Open the cover

(b) Push the SIM holder towards the right (as shown) to unlock, then lift the SIM holder upwards.

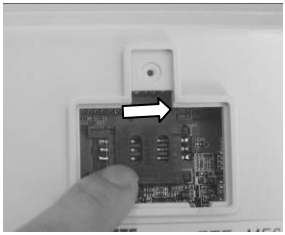

Chart 2-7 Open the holder

(c) Slide the SIM card into the SIM card slot. Make sure that the golden contacts of the card are facing downwards and that the beveled corner matches with the SIM slot.

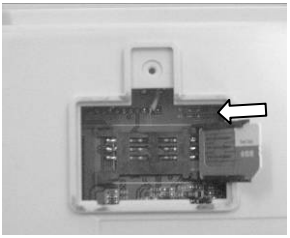

Chart 2-8 Slide the SIM card in

(d) Close the SIM card holder back and lock the SIM card.

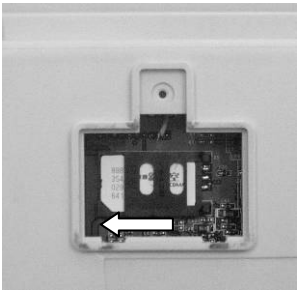

Chart 2-9 Close the holder

(e) Close the back cover.

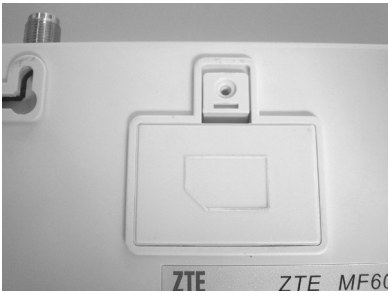

Chart 2-10 Close the cover

Warning: Please power off the modem and remove the external power source before removing or inserting the SIM card, if not, the modem or SIM card may be damaged.

Note: The SIM card provided to you can only be used specifically for this modem and not to any other mobile device.

3. Step 3: Install the battery to the modem.

(a) Lift the cover up to and remove it.

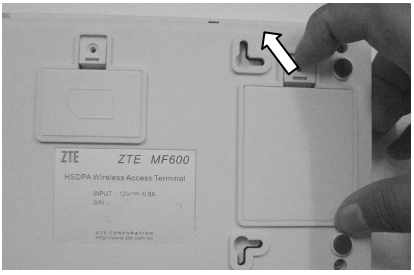

Chart 2-11 Open the cover

(b) Connect the battery connector plug to the pin socket at the modem.

Chart 2-12 Connect plug and pin

(c) Put the battery into battery box.

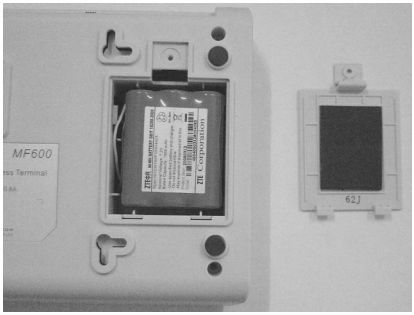

Chart 2-13 Put the battery in

(d) Close the back cover.

Chart 2-14 Close the cover

4.Step 4: Connect the telephone set and the modem using a phone cable (RJ11) via the PHONE interface as shown.

Chart 2-15 Connect the telephone and the modem

5. Step 5: Connect your PC and the modem using the cross Ethernet cable (RJ45) supplied to you via the LAN interface as shown.

Chart 2-16 Connection of modem and computer

Note: The Phone Cable & Ethernet Cable (Cross) is provided. Please DO NOT use any other Ethernet Cable to ensure modem will work.

6. Step 6: Connect the power adaptor to a standard power outlet, and insert the plug into the socket at the rear of the modem.

Chart 2-17 Connect the power adaptor

7. Step 7: Turn the power switch⏻ to " | " to get started. Make sure the phone is on hook before powering on.

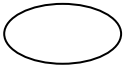

Chart 2-18 Power on

Note: When the modem is switched off, and if a new call is coming in, the caller will not hear the prompt "The number you have dialed is currently unavialble.''

8. Step 8: Make sure you wait 1 – 2 minutes after switching the power ON before you use the service. The RSSI, DATA & PWR indicator should be lit on. Now, you can start using the service.

Chart 2-19 Installation is finished

Note: Make sure the RSSI (Radio Signal Strength Indicator) LED is not blinking but is constantly lit up. If not please move the modem until you get the RSSI led to be constantly lit up. The reason why it takes 1-2 minutes is because the modem needs to initialize, attach to the network and then only obtain an IP address.

2.4 Power Supply

There are two ways of providing power supply to the modem:

1. External power supply or/and
2. Rechargeable battery supply

When using the modem, please connect it with the external power adapter. Use the rechargeable battery of the modem in case of power failure or when there is no available

external power supply.

The rechargeable battery will be charged automatically when external power supply is connected.

When the rechargeable battery is drained, the BATT indicator will begin to blink. Please connect the external power adapter for about 7 hours of charging time.

2.5 About SIM card

Please insert the SIM card provided to you for this service into the modem before using the service.

Please do not touch the metal surface of the SIM card, which can cause loss of information or damage to the card. Keep the SIM card away from any electrical and magnetic appliances.

Note： If you cannot use the modem after you insert the SIM card, please make sure:

1) The SIM card provided by the service provider is the correct SIM.

2) You are in a network coverage provided by your service provider.

The SIM card provided with this modem **CANNOT** be used with any other device besides the modem and likewise other SIM cards will not work with this modem unless specified by the service provider.

3 Voice Calls

3.1 Making a call

(1) Before making a call, make sure:
   a) The PWR or BATT light is on
   b) The RSSI light is on;
   c) The Telephone cable (RJ11) is connected properly;
   d) The PHONE light is on when you pick up the call.
(2) Pick up the handset of the telephone which has been connected to the modem shown in installation process;
(3) Key in the telephone number;
(4) You can either press the "#" key on the telephone to send the call, or wait 4 - 8 seconds for the call to be connected automatically;
(5) Call will be connected.

If you are making a domestic call, key in the phone number like this:

Trunk or Mobile Code + Phone Number

e.g. 03-XXXXXXXX or 04XX-XXXXXX

If you are making an international call, key in the phone number like this:

International Access Code + Country code + Trunk or Mobile Code + Phone Number

e.g. 0011 60-3 XXXXXXXX or 0060-12 XXXXXXX

Note: when there is no RSSI indication it indicates weak RF signal or antenna screw is loose. Change the location of the modem and make sure nothing is blocking it or recheck the antenna installation again.

3.2 Answering the Call

When the phone rings, pick up the handset to answer it. If the telephone has hands-free function, you can also answer the call by pressing the **Hands-free button**. Pressing the hands-free button again or putting the handset back, ends the call and enables the phone to receive the next incoming call.

4 Internet Accesses

The modem does NOT require any drivers, and it supports main operating systems, such as MS Windows 98, Windows 2000, Windows ME, Windows XP, Windows Vista, MAC OS X and other Operating systems that support TCP/IP network connections.

4.1 Connecting to the Internet

Before you begin to enjoy the data service, make sure:

(1) The PWR or BATT light is on;

(2) The RSSI light is on;

(3) The cross Ethernet cable is connected properly;

(4) The DATA light is blinking.

NOTE: Please use the **exclusive Ethernet cable *(Cross Ethernet Cable)*** that was provided to you together with the modem. Also please note that if the RSSI light is blinking then you should make sure that the modem is located at a suitable place and free from obstruction (preferably near a window)

Web browser requirement:

It is suggested that you use either of these web browsers to connect to the internet:

- IE 6.0 or above
- Mozillla Firefox 1.5.0.0
- Netscape version 8.1

4.2 Default Settings

Your modem is pre-configured with the default settings as below as such please **DO NOT** change any settings unless informed by your service provider. To make changes to your settings (NOT Recommended) you will need to make sure the modem is disconnected from the network. To do this you would have to:

1) Go to the "**Network Connect**" Tab (as shown below).
2) Select "**Manual Connect**".
3) Select "**Disconnect Internet**", then
4) Press on "**Submit**" button.

To check if your settings are correct please follow the instructions below:

4.2.1 System Info

Open a web browser e.g. Internet Explore, enter “ http://192.168.0.1” at address column， web page appears as follows:

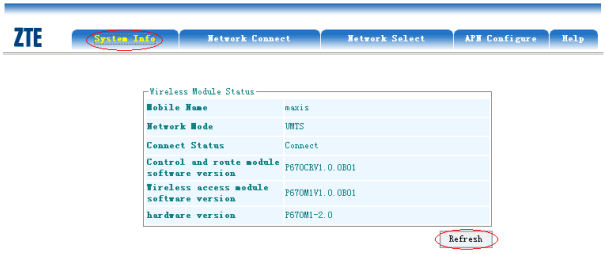

Chart 4-1 Settings of System Info

It shows network status, hardware version and software version, etc.

4.2.2 Network Connect

Click “**Network Connect”**, web page appears as follows:

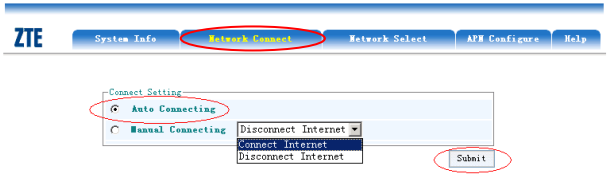

Chart 4-2 Settings of Network Connect

Make sure your setting is on "**Auto Connecting**".

- **Auto Connecting**: （Default）the modem will auto connect Internet .
- **Manual Connecting**: Connecting/Disconnect Internet by yourself.

4.2.3 Network Select

Click "**Network Select"**, web page appears as follows:

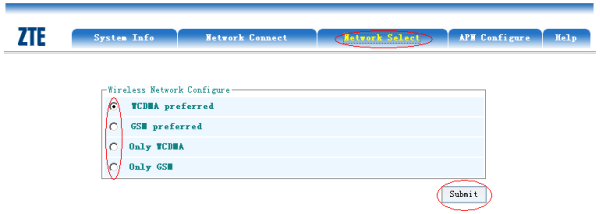

Chart 4-3 Settings of Network Select

Make sure your setting is on "**WCDMA Preferred**".

- **WCDMA preferred**（Default and recommended）：
  The modem will search valid network according to the priority: WCDMA→GSM.
- **GSM preferred**：The modem will search valid network according to the priority: GSM→WCDMA.
- **Only WCDMA**：The modem will only search WCDMA network.
- **Only GSM**：The modem will only search GSM network.

4.2.4 APN Configure

Click "**APN Configure**", web page appears as follows:

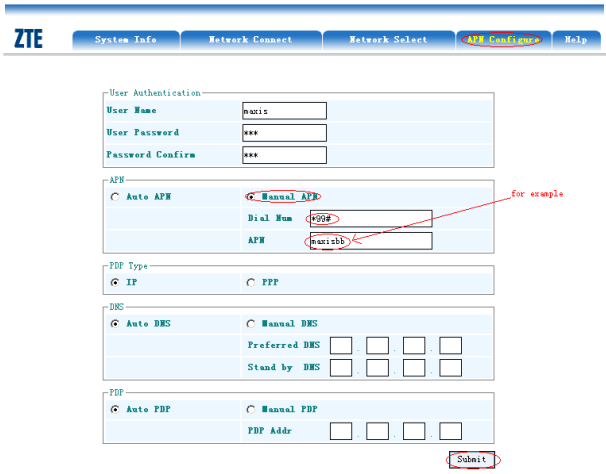

Chart 4-4 Settings of APN Configure

Make sure your settings are as bellow:

- **APN: "Manual APN"**
- **Dial Num: "*99#"**
- **APN: Provided by carrier**
- **PDP Type: IP**
- **DNS: Auto DNS**
- **PDP: Auto PDP**

Press "**Submit**" button to confirm it.

The User Name and Password are provided in your paperwork from Telstra relating to account & connection settings.

4.2.5 Help

Click "**Help"**, it will display the modem user guide.

4.3 Disconnecting from the Internet

If you want to end your Internet session, you should:

- Select "Disconnect Internet" on **Network Connect** page and click "**Submit**" button to confirm it. (See Chart 4-2)
- Or switch off the modem.
- Or Unplug the cross Ethernet cable.

5 Troubleshooting

1) Please make sure firstly that all the cables (Phone Cable and Cross Ethernet Cable) and accessories (SIM, Antenna, Power Adaptor and Rechargeable battery) are connected correctly.
2) Please make sure the RSSI, DATA/PHONE and PWR/BATT led on the modem is lit on and NOT in a blinking state or no light.

A) Voice Related Problems

Symptoms	Possible Problem/ Solution
No Dial Tone as soon as I lift the phone off the hook.	Please wait for 1~2 minutes after the modem is powered ON since the modem will need to Initialize, Attach to the Network and finally get an IP address from the network.
There is a prompt/ phone alert/ announcement as soon as I lift the phone off the hook.	Please make sure the SIM card is the valid SIM provided by the service provider.

Symptoms	Possible Problem/ Solution
	The line might be barred or suspended.
There is a prompt/ phone alert/ announcement as soon as I dial the last digit	The dialed number might not be in service or currently suspended. To ensure the number you called is not facing this problem try to call a similar number.
The line is noisy/ distorted when I lift the phone off the hook	Remove any electrical appliance which is too close to the phone set or modem. The cable or phone set might be faulty.
I hear a fast engaged tone (toot..toot…toot) as soon as I lift the phone off the hook	Try to On Hook then Off Hook again to make a call. Make sure you are not surfing the net during this time.
After dialing the last digit I hear nothing /silence.	Please make sure you wait between 4 to 8 seconds before the call is connected or press the # key after pressing the last digit.
When I get a phone call I	The modem does not

Symptoms	Possible Problem/ Solution
can't see the caller's ID/ number.	support Caller LINE Identification Presentation (CLIP).
I can't access my Voice Mail	Please consult with the service provider to make sure the service is supported and active.
When my friends call and I am busy the call doesn't go to voicemail.	Please consult with the service provider to make sure the service is supported and active.
I can't make or receive a call when I am surfing on the net.	Please DO NOT use the internet and make sure it is idle (meaning no packets are transferred) for 30 seconds to 1 minute. Than you may proceed to make a call.
How come when I am on the phone and there is a incoming call there is no indicator to allow me to pick up the next call.	Please consult with the service provider to make sure the service is supported and active.
I cannot use my dect phone or the phone I purchased.	Please use the phone set provided by the service provider.

Symptoms	Possible Problem/ Solution
I cannot initiate a conference call to others.	Please consult with the service provider to make sure the service is supported and active.
I cannot forward my calls to another number.	Please consult with the service provider to make sure the service is supported and active.
I cannot activate / deactive some services (ex. Caller ringtone, USSD Code, etc….)	Currently we DO NOT support this feature.

B) Internet Related Problems

Symptoms	Possible Problem/ Solution
I cannot access the internet at all.	Please check your configuration settings as mentioned. Please wait for 1~ 2 minutes after switching on the power so that the modem would have fully initialized, connected to the network and obtained an IP address.

Symptoms	Possible Problem/ Solution
I cannot access certain pages.	This could be related to certain web servers being congested at that time due to overwhelming hits, please try to visit other pages to see if the internet connection is working.
The download or/ and upload speeds are very slow.	The speed is depended on the signal strength and different networks (for example, in a HSDPA network the speeds is much faster than being in a GPRS network). For more details, consult with your service provider.

C) Others

Symptoms	Possible Problem/ Solution
The RSSI signal indicator is always blinking or No Light	Check if anything is blocking the modem or it is placed near any electrical devices. Move the modem to another location near the window and make sure the antenna is tightened and in a

Symptoms	Possible Problem/ Solution
	upright position.

6 Appendix

6.1 Modem Technical parameters

- **Network:** GSM900/GSM1800/GSM1900MHz and WCDMA/HSDPA 850/2100 MHz
- **LED display:** Power indicator/Rechargeable battery indicator/ Phone indicator/ DATA indicator/ RSSI signal strength indicator
- **External interface**:
  a. External power socket
  b. Antenna connector (ANT)
  c. Phone interface (PHONE)
  d. Data interface (LAN)
  e. Test interface (DIAG)
- **Power adapter**:
  Input： 90~270V (AC), 50/60Hz
  Output： +12V (DC)
- **Data service:**
  GPRS supports CLASS10,
  EDGE supports MCS12，
  WCDMA PS field supports Max 384kbps (down

link), 384kbps(Up link)，

WCDMA CS field support Max 64 kbps，
HSDPA PS field supports Max 3.6Mbps (down link), 384kbps (Up link).

- **Dimensions (W×H×D):** 220mm×140mm×38mm (Exclude antenna)
- **Rechargeable battery:**

Continuous standby time: Approx. 4 hours (Depending on the network condition).

Continuous talk time: Approx. 2 hours (Depending on the network condition).

Please refer to the real objects for the related parameters about the rechargeable battery and charger.

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